



SB1000 series Software Upgrade For New Generation \$100 bill



SB1000+ (Plus)



SB-1000



SB1000 series Software Upgrade \$100

This S/W Upgrade instruction covers the below 3 Models / H/W Version

1) SB1000+ (with Dual MG Detectors / MRS)



(Sold from Oct, 2008 to May 20, 2010)

2) SB1000+ (MRA)



(Sold after May 20, 2010 to current)

3) SB-1000 (Green LCD Display)



(Sold between 2006 - Oct 2008)



SB1000 series Software Upgrade \$100

1) Using of PC Software:

☐ Main Program (*.Hex) Upgrading

Program needed: ATMEL FLIP 3.4 for windows

Download from Atmel below link for appropriate windows version:

http://www.atmel.com/dyn/products/tools_card.asp?tool_id=3886



☐ Image Program Upgrading

Programmer: SB1000v310.exe

Image Upgrade files (*.swm, *.swt and *.swg)



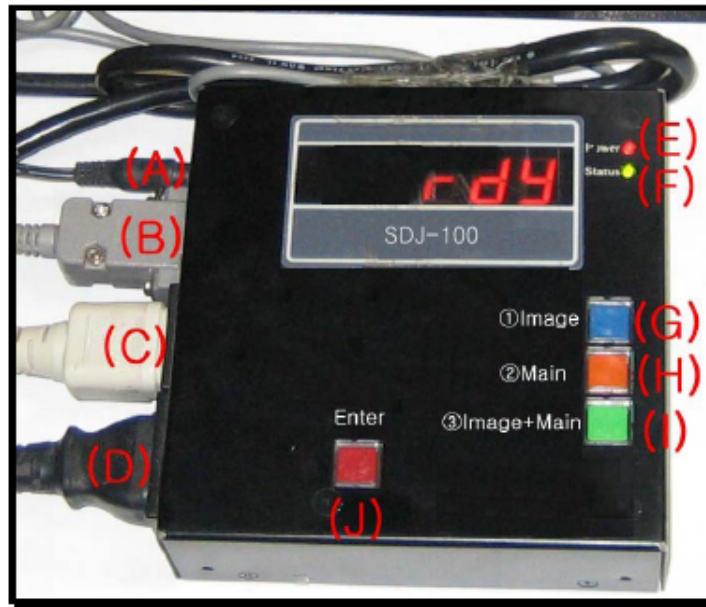
V310.exe



SB1000 series Software Upgrade \$100

2) *Using of SDJ-100 (firmware Black box)*

<SDJ-100>

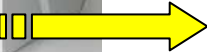


See CD #2 for SDJ-100 User manual and instructions

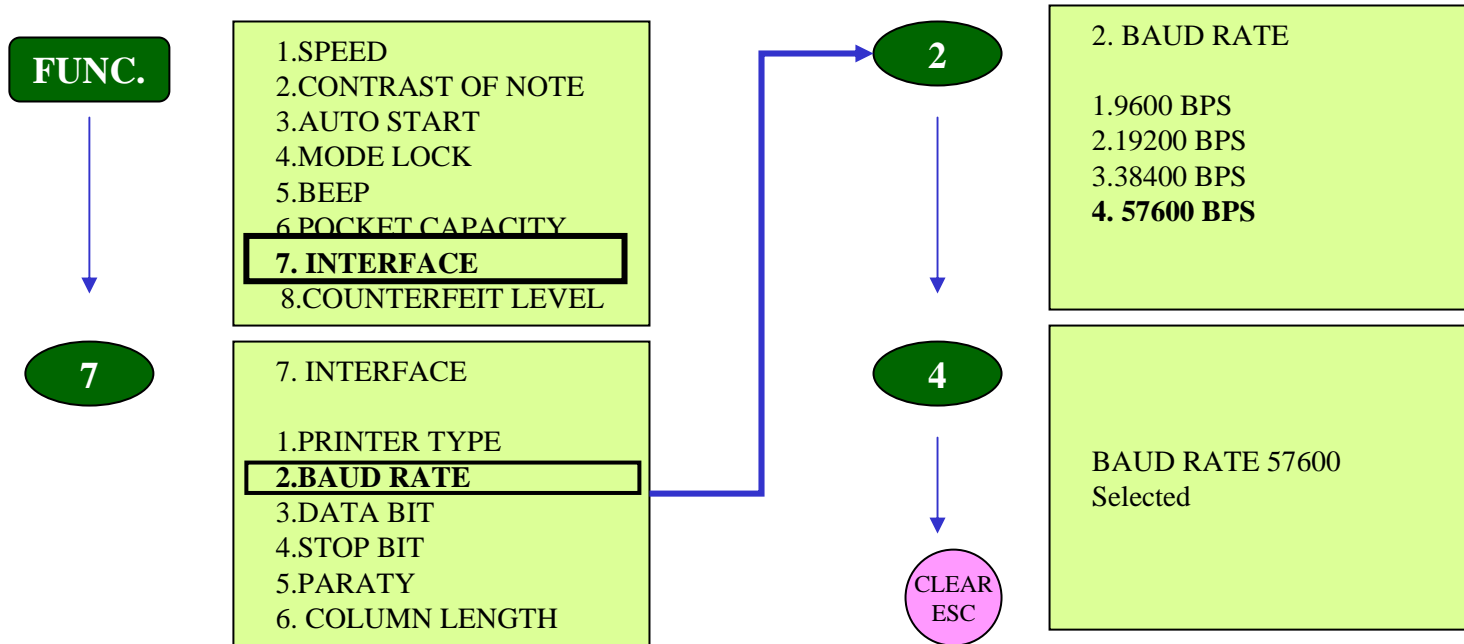


Interfacing with PC

- *Connect with Com.1 port of PC*



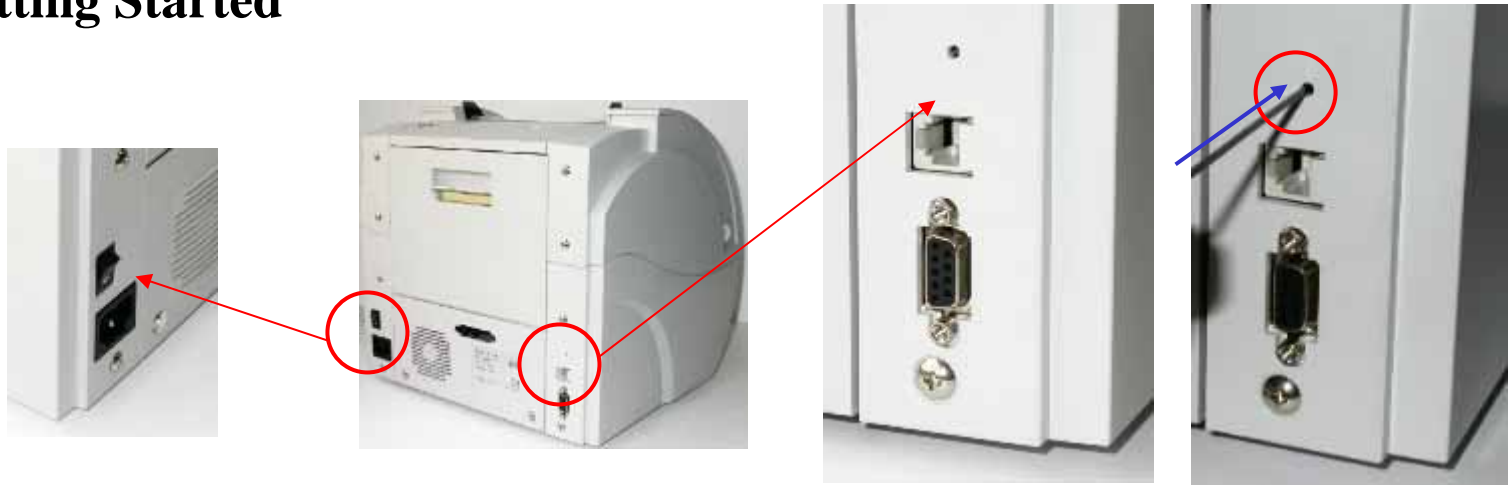
- *Set baud rate of SB1000 to 57600bps*





Upgrading : Main Program (*.HEX)

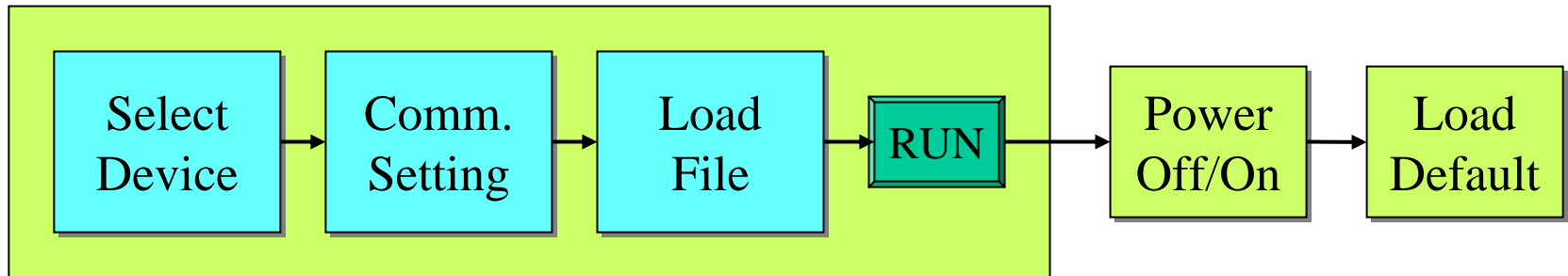
▪ Getting Started



- ✓ Press and keep down Program Key during power on
- ✓ Release after 3~5seconds from power on

▪ Programming

Flip



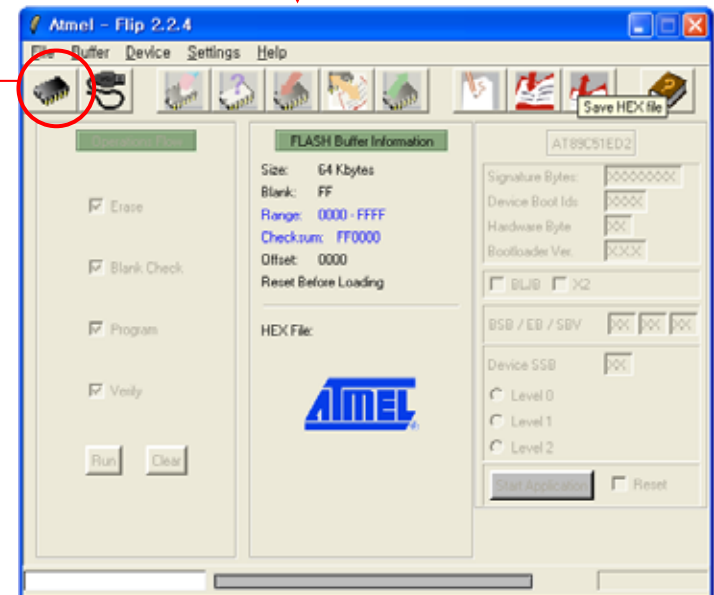
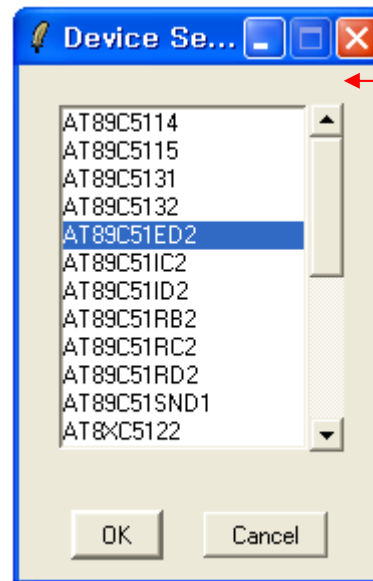


Device Selection



- **Execute**
Flip Programmer

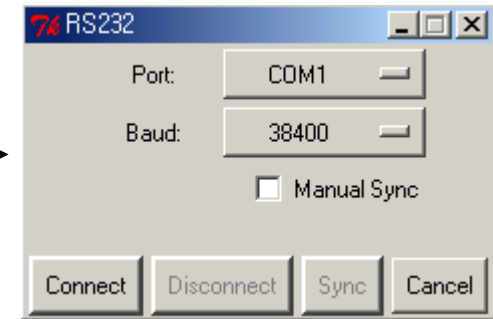
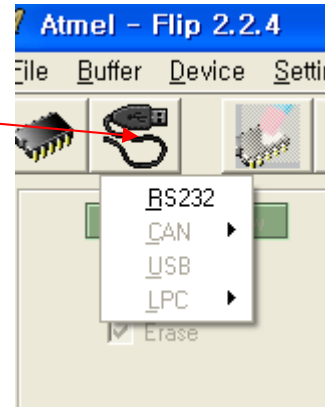
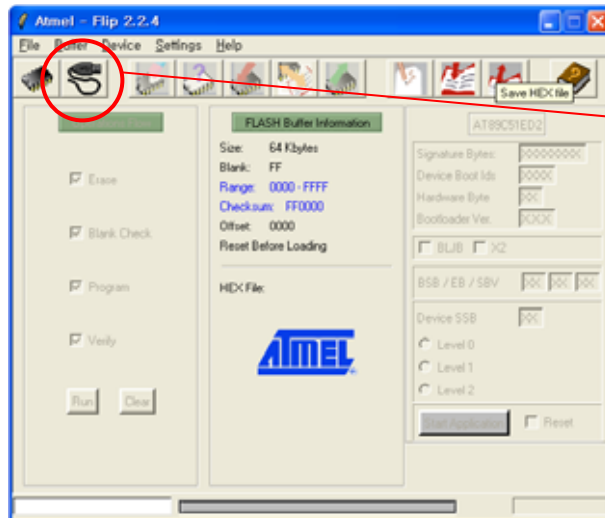
- **Select Device**
: AT89C51ED2





Communication Setting

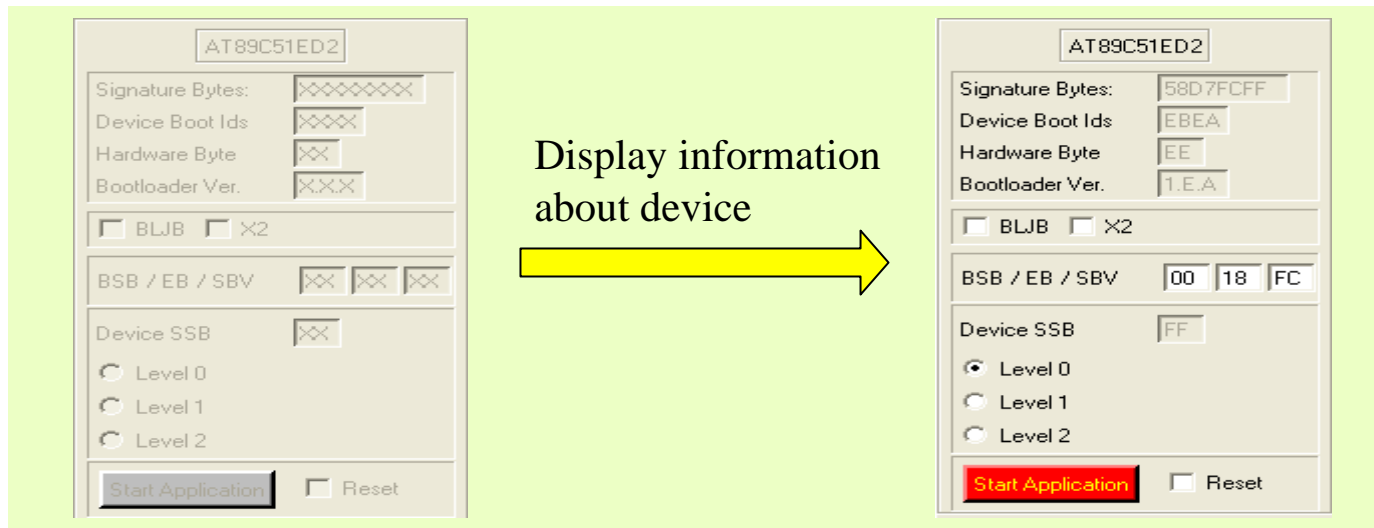
■ Set Communication Port and Baud rate



■ Port : COM1

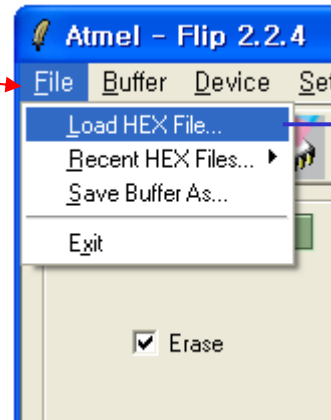
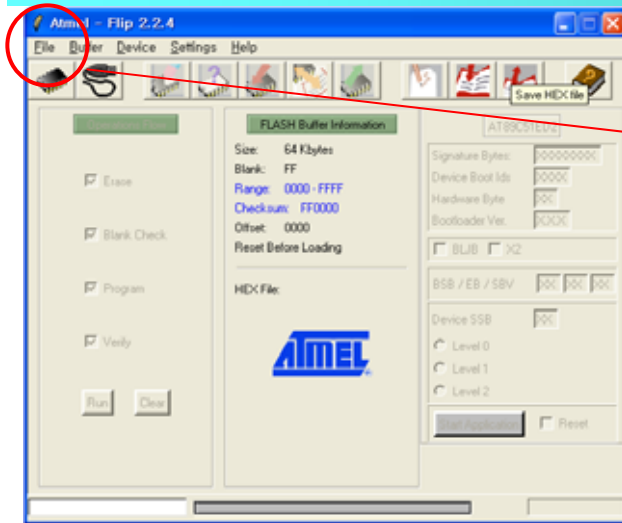
■ Baud rate : 38400 (SB-1000)

■ Baud rate: 115200 (SB1000+)

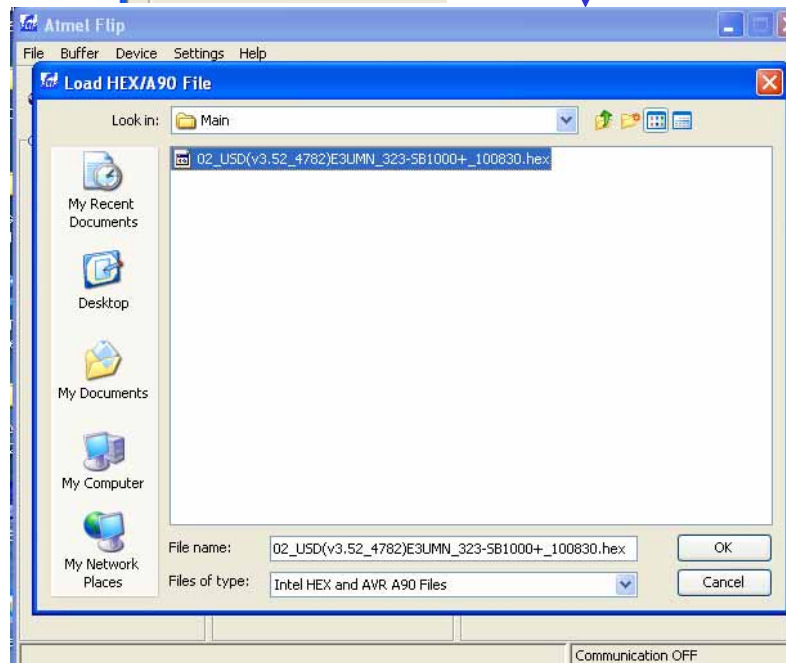




Load File : *.HEX



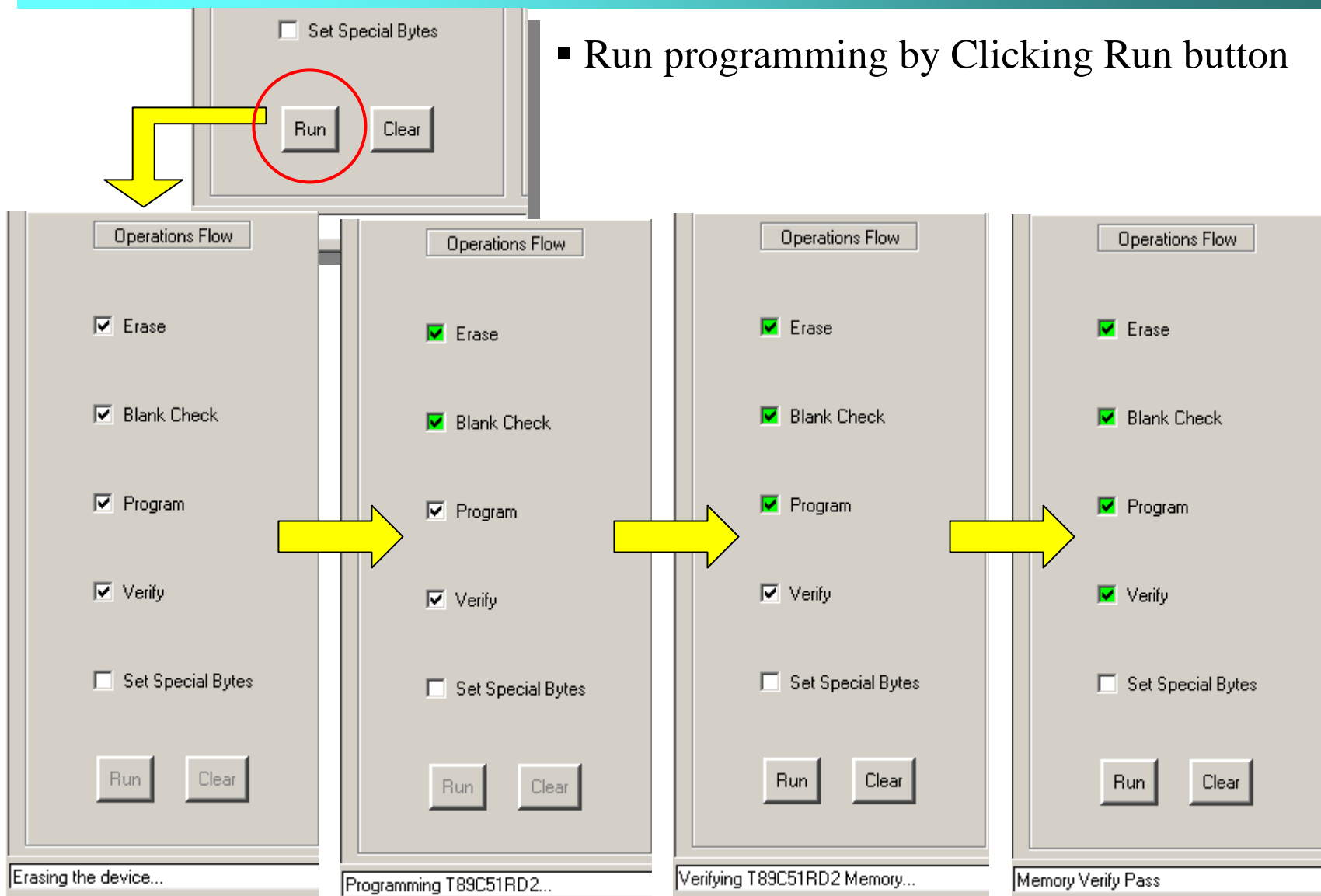
- Load *.Hex file
(choose correct version
/ model as provided)





Load File : *.HEX

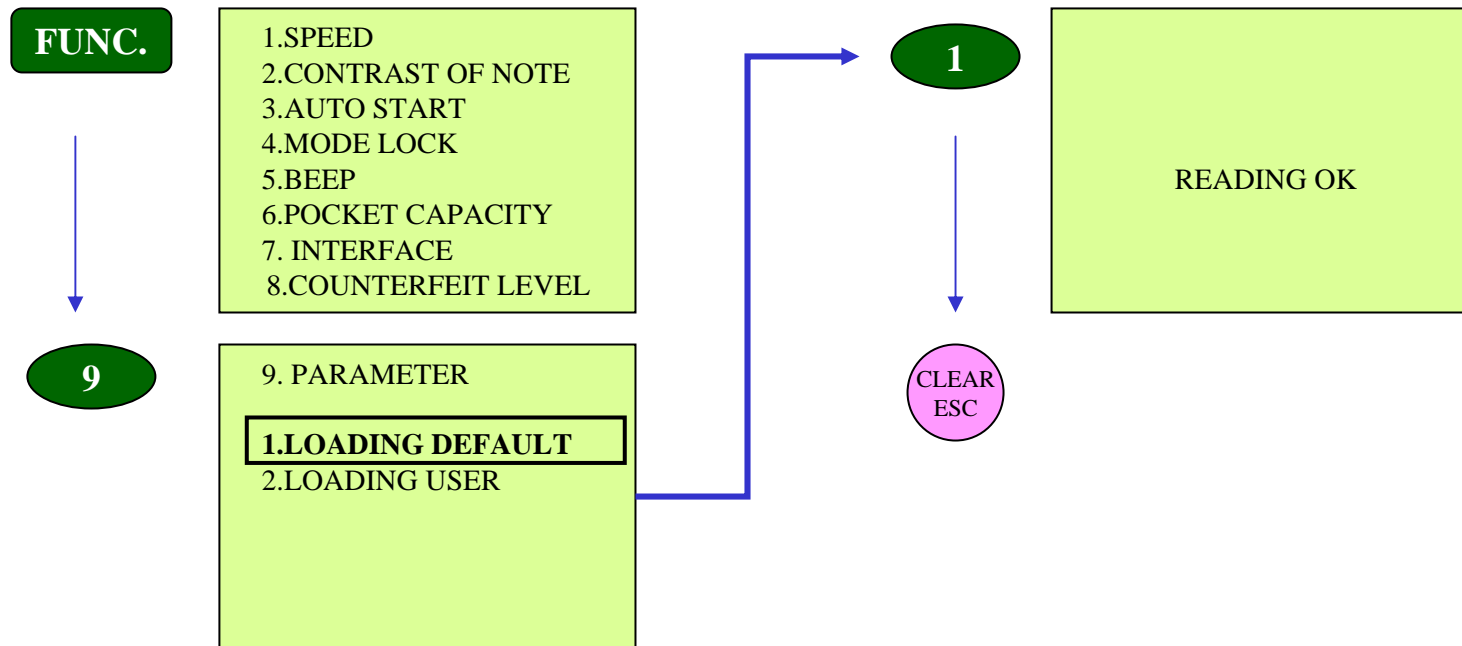
- Run programming by Clicking Run button





Default Loading

- Power off SB1000 unit
- Power on
- Load default parameter



- Power off
- Power on

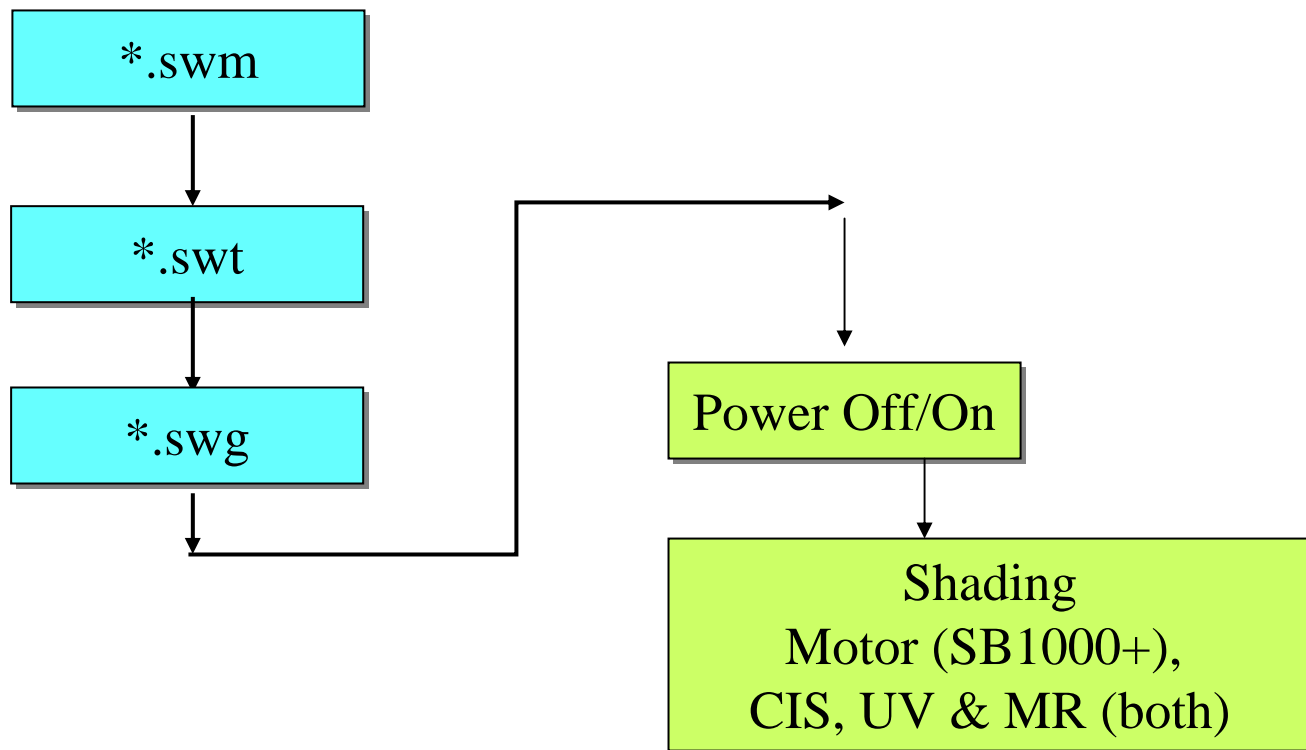


Upgrading Image Software

- Set baud rate of SB1000 unit to 57600.
- Execute V310.exe Programmer file by double clicking.
- Sequentially install new image firmware as below.



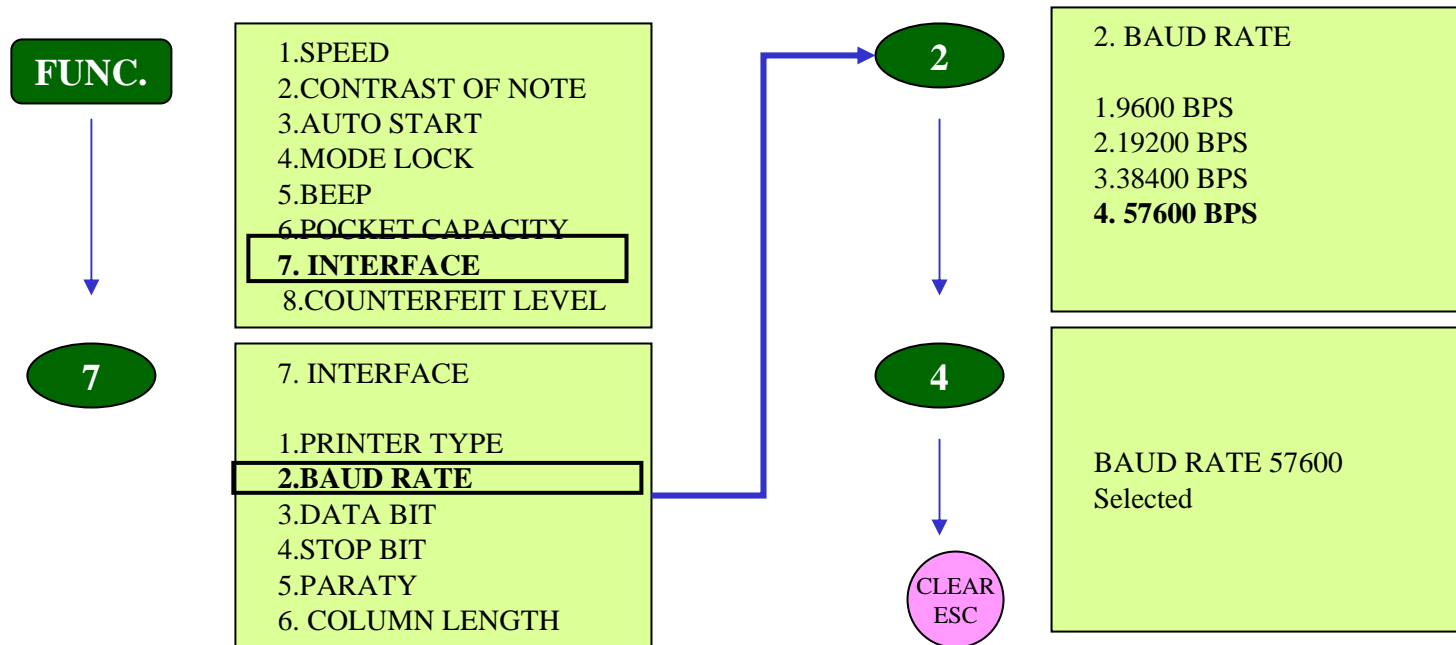
V310.exe





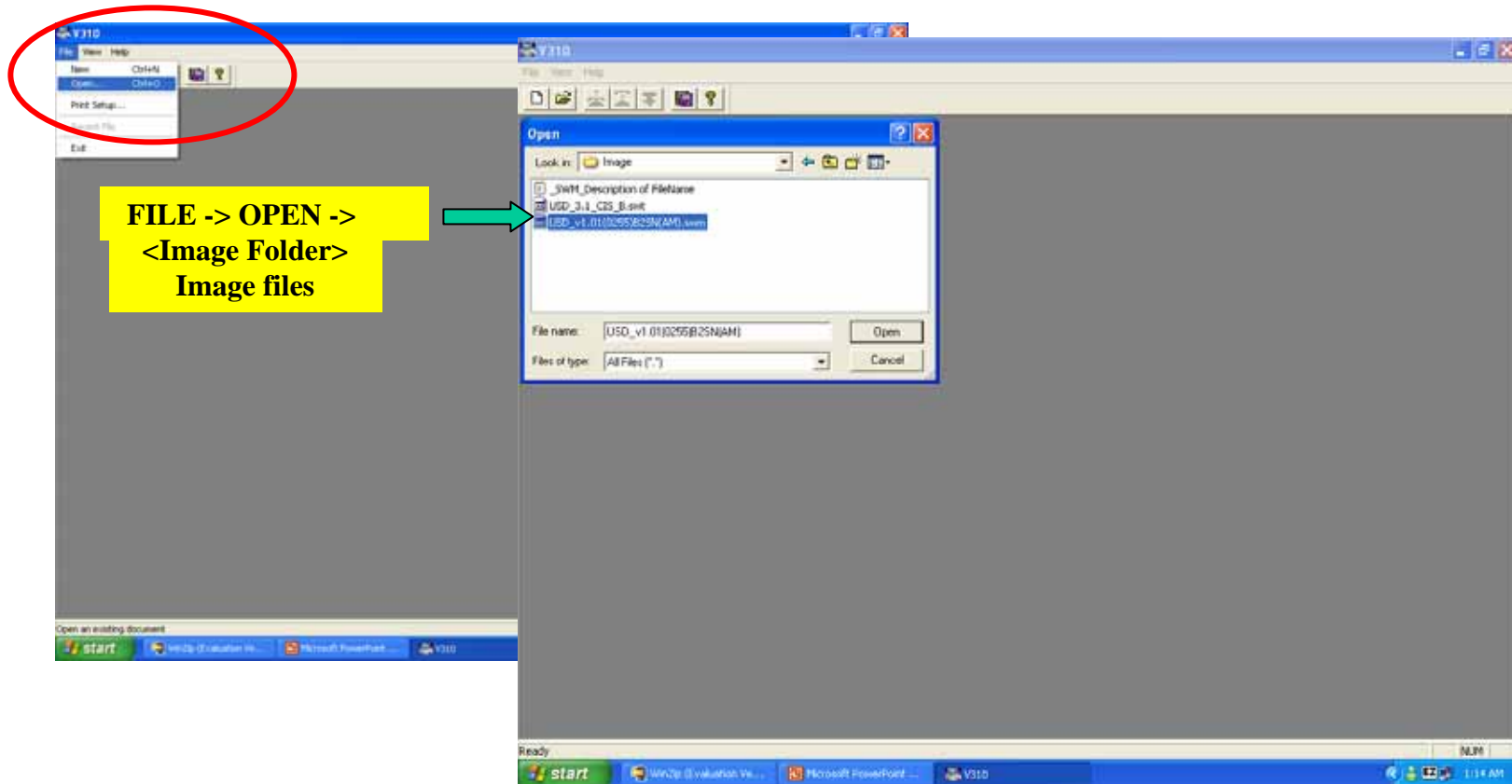
Baud Rate : 57600

- Set baud rate of SB1000 unit to 57600bps



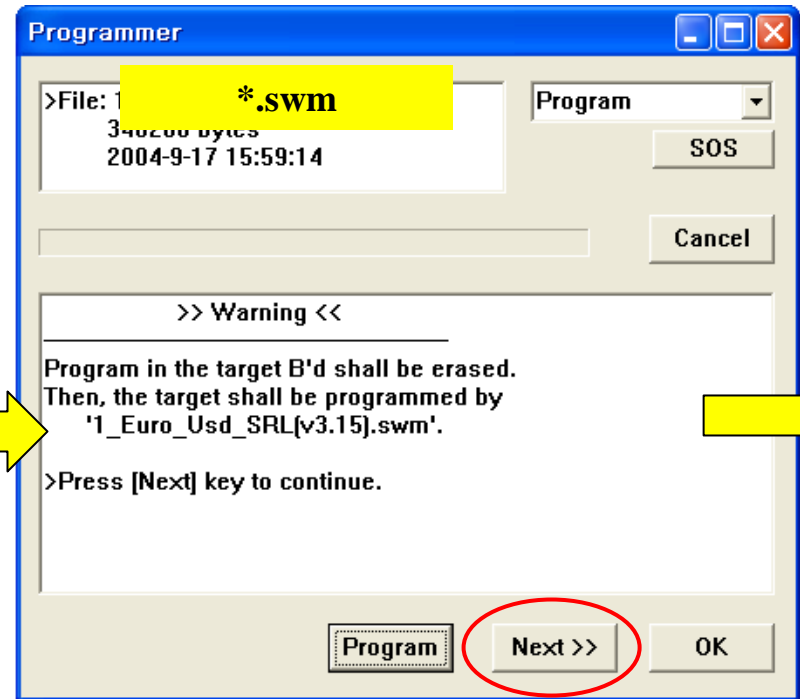
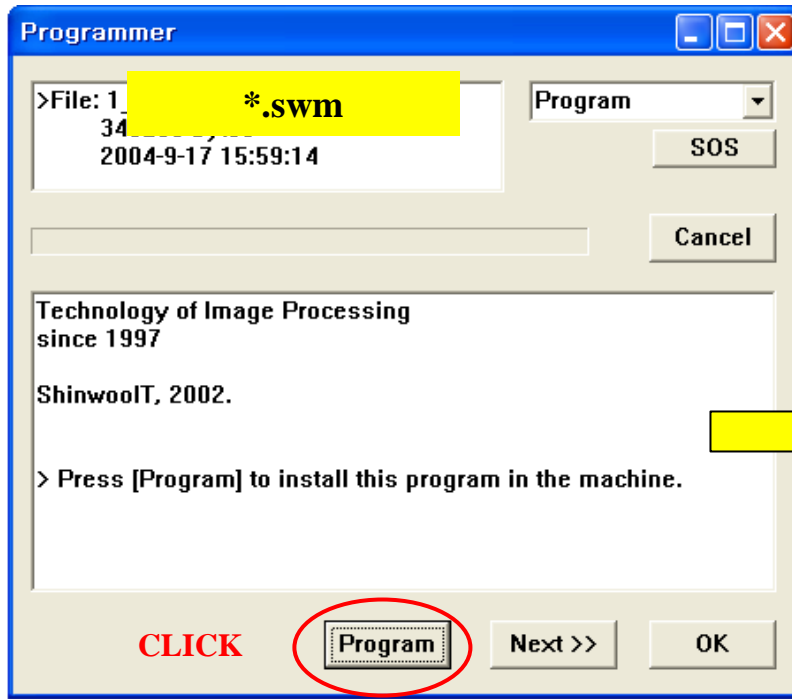


Execute V310.exe & File Open





Program → Next

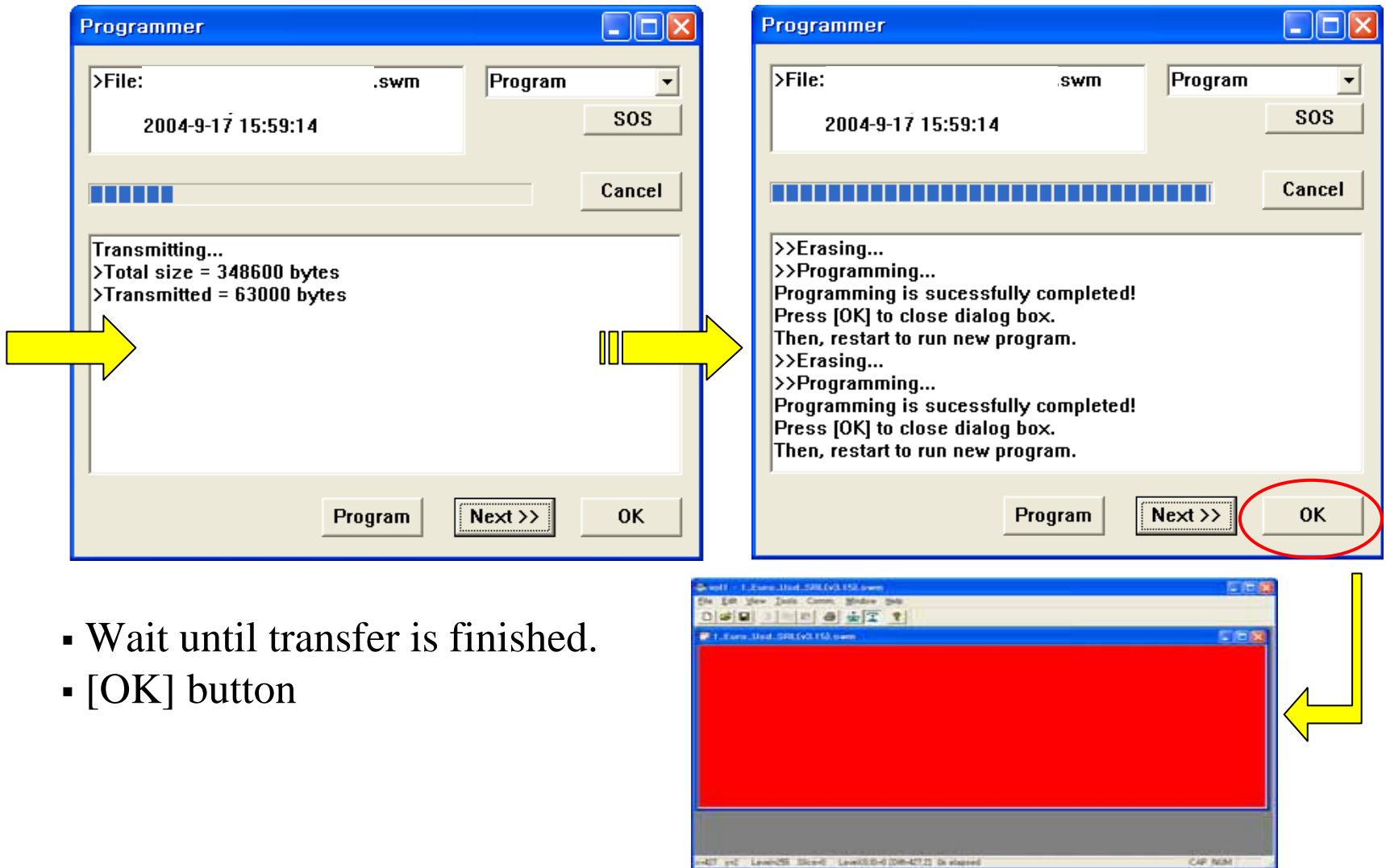


CLICK

- Press [Program] button
- Then press [Next>>] button
- File will transfer automatically



Next → OK



- Wait until transfer is finished.
- [OK] button



Programming

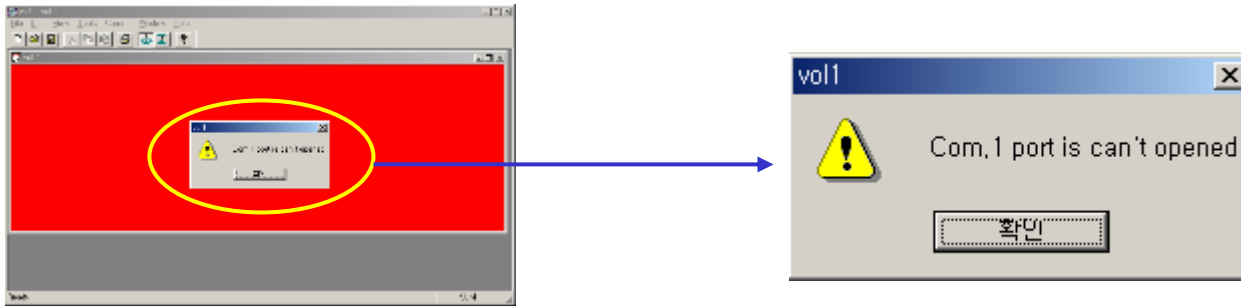
- Repeat above step(File Open ~ OK) for other software provided
 - *.swt
 - *.swg
- Close “sb1000_v310.exe” programmer
- Power OFF the SB1000 unit
- Power ON
- **Perform MOTOR Shading (only SB1000+ model)**
- **Perform CIS / UV / MR Shading (both models)**

(see page from 19)

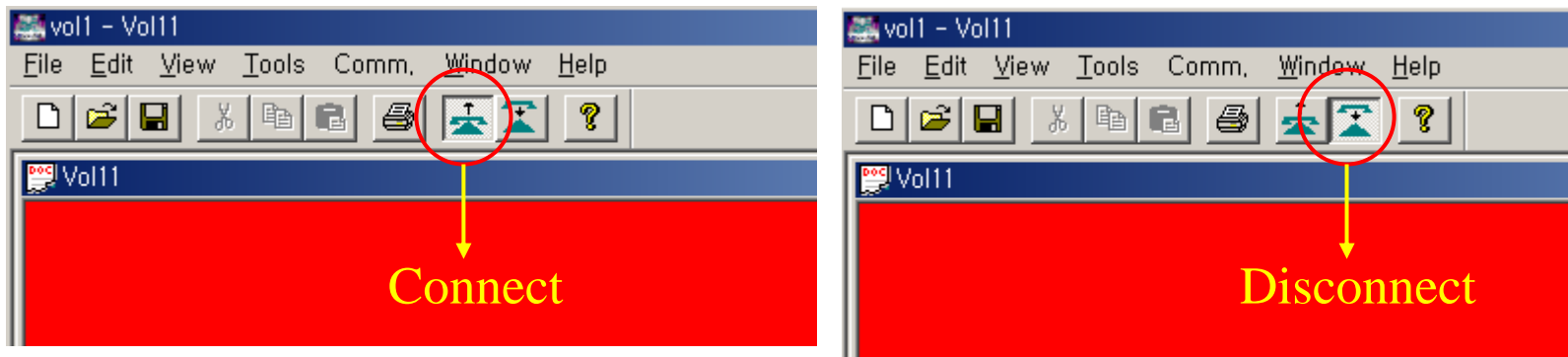


ERROR: Can't open Com.1 Port

- If can't open the com port when open file :
 - ✓ Check another application using Com.1 port
 - ✓ Check Com.1 port of sb1000.exe



- If Com.1 port is occupied by another programmer :
 - ✓ Disconnect Com.1 port by clicking disconnect button





SHADING MANUAL (SB1000+ & SB-1100)

Nov 15. 2008



✓ **What is Shading?**

Distortion caused by artifacts and difference of characteristic.

✓ **Why need Shading data.**

Compensate the distortion for accurate processing.

☞ **Important : reference for signal processing.**

**Before you make a shading, please load default parameter.
(Press 'FUNC' → '8' → '1' 'ESC')**

□ **1. MOTOR**

□ **2. CIS**

□ **3. UV**

□ **4. MR**

□ **5. IR (SB-1100)**



1. MOTOR (1)

FUNC.

BATCH

CODE[55757]

5

1

1

1.ERROR STOP CTRL.
2.SENSOR LEVEL CTRL.
3.SYSTEM REPORT
4.SET A/S CALL No.
5.SHADING
6.SENSOR SET

5.SHADING

1. MOTOR
2. CIS
3. UV
4. MR
5. IR

1. MOTOR

1. 800 RPM
2. 1000 RPM
3. 1200 RPM
4. LOW RPM

RPM TEST
98 89 254

PLACE TEST SAMPLE
ON HOPPER

Insert more than 20
number of 'Usual
Paper' or 'MONEY'
like picture



If displayed 'NG',
please put on the
money again until
displayed 'OK'.

RPM TEST NG
98 89 78
Min = 780.9 NPM
Max = 802.7 NPM
Avg = 788.2 NPM
Uni = 98.7%

If displayed 'OK'

To continue
Next Shading

RPM TEST OK
98 89 79
Min = 786.2 NPM
Max = 799.1 NPM
Avg = 792.4 NPM
Uni = 99.7%

FUNC

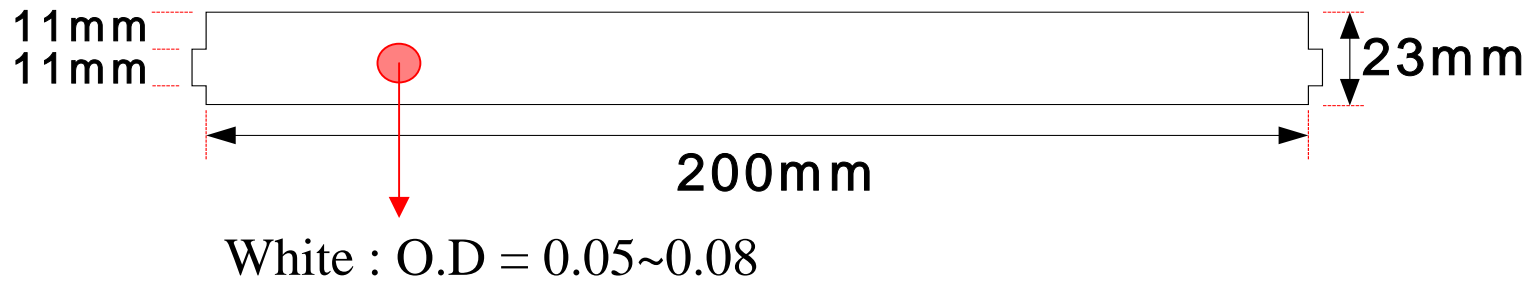
To Exit

CLEAR
ESC



2. CIS Shading (1)

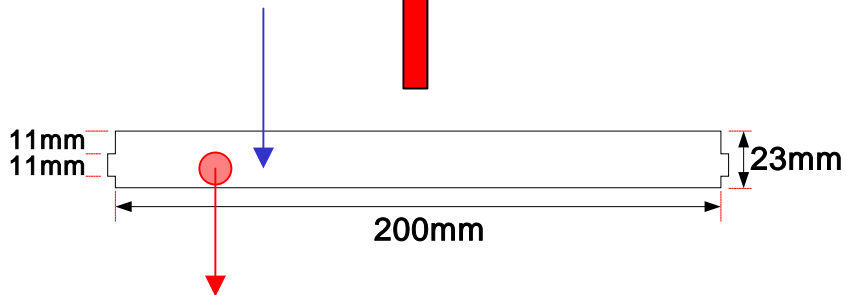
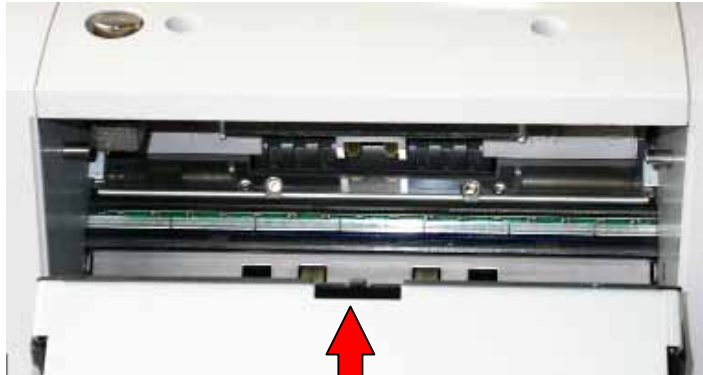
SHADING SHEET





2. CIS Shading (2)

- Open Rear Cover



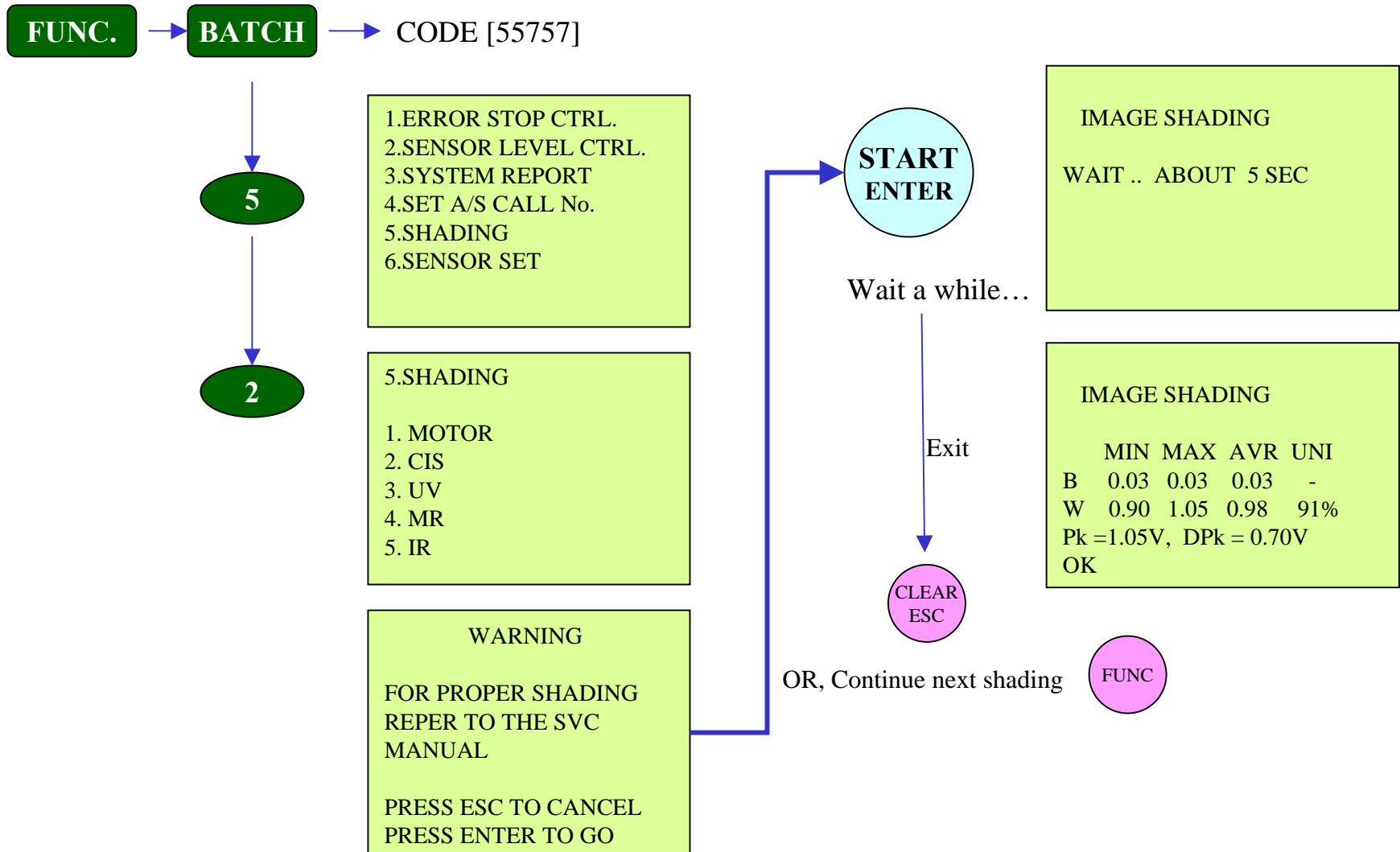
White : O.D = 0.05~0.08

- Place Shading Sheet & Close





2. CIS Shading (3)





3. UV SHADING (1)

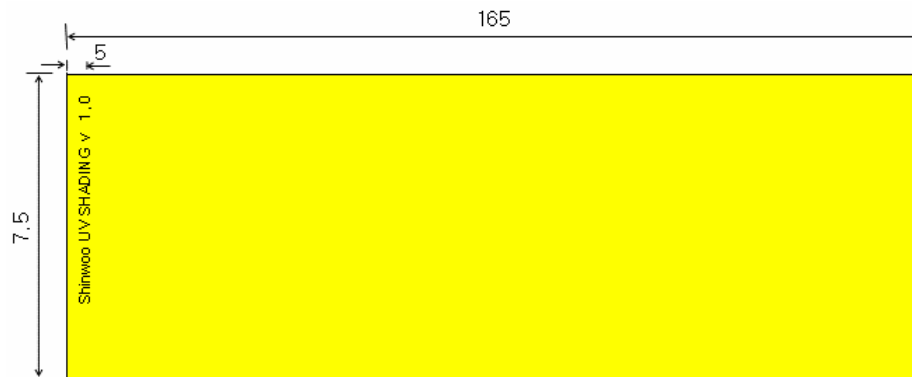
- Open Rear Cover



- Place Shading Sheet & Close

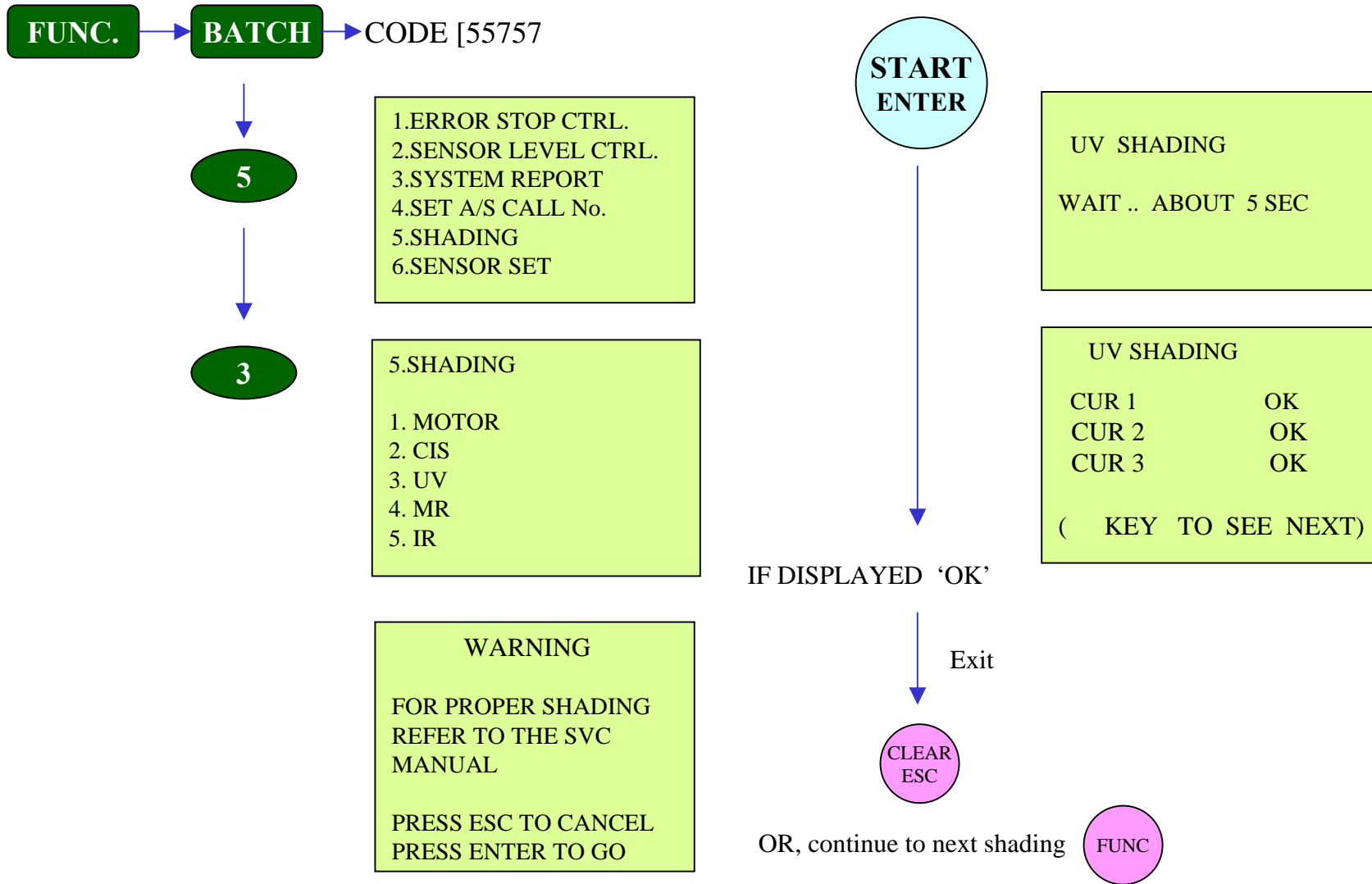


SHADING SHEET SHINWOO UV SHADING V1.0





3.UV SHADING (2)





4. MR SHADING (1)

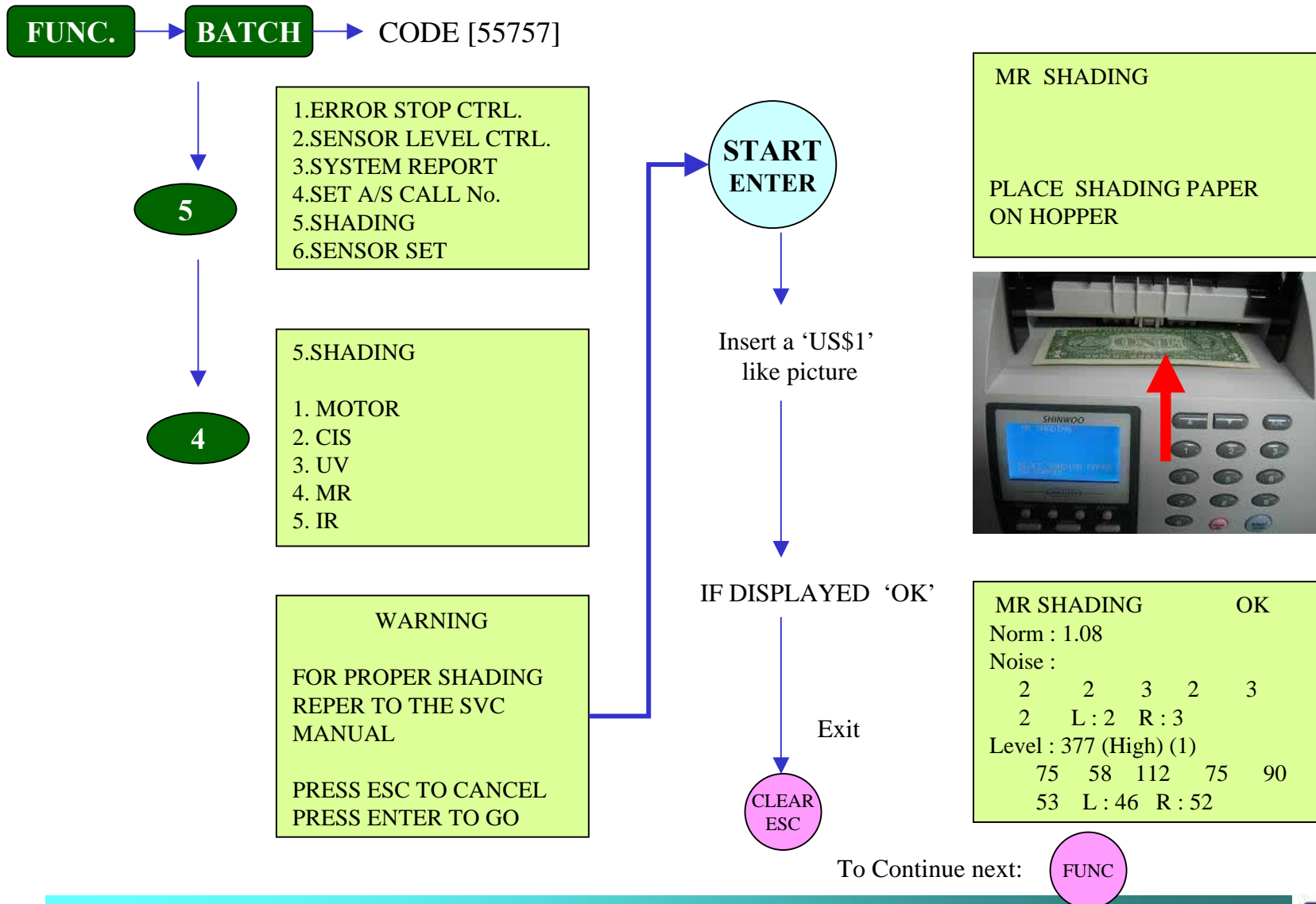
SHADING SHEET



USE US \$1 (Rear Banknote)



4. MR SHADING (2)

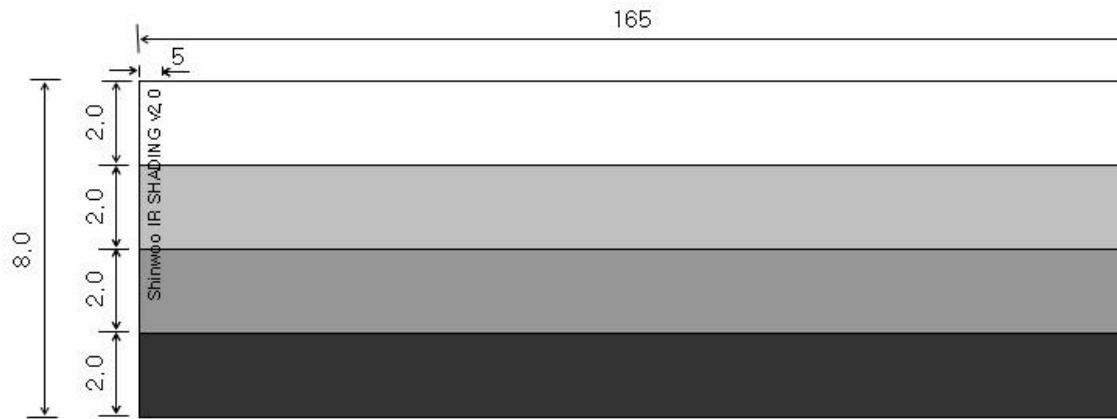




5. IR SHADING (1) SB-1100

SHADING SHEET

SHINWOO IR SHADING V2.0





5. IR SHADING (2) SB-1100

FUNC. → **BATCH** → CODE [55757]

5

- 1.ERROR STOP CTRL.
- 2.SENSOR LEVEL CTRL.
- 3.SYSTEM REPORT
- 4.SET A/S CALL No.
- 5.SHADING
- 6.SENSOR SET

5

5.SHADING

1. MOTOR
2. CIS
3. UV
4. MR
5. IR

WARNING

FOR PROPER SHADING
REFER TO THE SVC
MANUAL

PRESS ESC TO CANCEL
PRESS ENTER TO GO

**START
ENTER**

Insert a 'Shading sheet'
like picture

IR SHADING

PLACE SHADING PAPER
ON HOPPER



IF DISPLAYED 'OK'

**CLEAR
ESC**

IR SHADING - STATIC

	MIN	MAX	MEAN	UNI
W	1.65	1.95	1.84	89%
G	1.27	1.68	1.46	84%
1	0.26	0.48	0.40	66%
2	1.01	1.27	1.13	87%
RESULT			OK	
(KEY TO SEE NEXT)				